



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,500	11/06/2003	Yoshihide Komatsu	60188-689	9380

7590 04/19/2005

Jack Q. Lever, Jr.  
McDERMOTT, WILL & EMERY  
600 Thirteenth Street, N.W.  
Washington, DC 20005-3096

EXAMINER

LE, DON P

ART UNIT PAPER NUMBER

2819

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/701,500

Applicant(s)

KOMATSU, YOSHIHIDE

Examiner

Don P. Le

Art Unit

2819

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-10 and 13 is/are rejected.
- 7) ☒ Claim(s) 4-6, 11, 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/6/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7-10 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Brunolli (US 6,731,135).

3. With respect to claim 1, figure 3 of Brunolli discloses a current driver circuit for driving a pair of transmission lines by allowing a current to flow in a terminal resistor (RD21, RD22) connected between the pair of transmission lines, the current driver circuit comprising:

a current driver having a current source transistor (QB) connected to a power source potential level, the current driver being coupled to the pair of transmission lines; and

a current compensation circuit (306, 304, 310) for compensation of an output current from the current driver in response to a common mode potential of the pair of transmission lines, the current compensation circuit being coupled to an output side of the current source transistor.

4. With respect to claim 2, figure 3 of Brunolli discloses the current compensation circuit initiates the compensation of the output current when a difference between the power source potential level connected to the current source transistor and the common mode potential becomes smaller than a specified value.

Art Unit: 2819

5. With respect to claim 3, figure 3 of Brunolli teaches the current compensation circuit increases the output current by a reduction in the output current when the current source transistor enters a non-saturated region.

6. With respect to claim 7, figure 3 of Brunolli discloses a switch (301).

7. With respect to claim 8, figure 3 of Brunolli teaches a current driver circuit for driving a pair of transmission lines by allowing a current to flow in a terminal resistor (RD21, RD22) connected between the pair of transmission lines, the current driver circuit comprising:

a current driver having a plurality of switch circuits (Q1-Q4) for controlling a current flowing in the pair of transmission lines; and

a current compensation circuit (301, 304, 306) for controlling stepwise respective operations of the plurality of switch circuits in response to a variation in a common mode potential of the pair of transmission lines.

8. With respect to claims 9 and 10, figure 3 of Brunolli teaches the current compensation circuit operates stepwise the plurality of switch circuits as a difference between a power source potential level and the common mode potential is reduced.

9. With respect to claim 13, figure 3 of Brunolli teaches the switch elements composing the plurality of switch circuits is composed of a miniaturized MOS transistor (Q1-Q4).

***Allowable Subject Matter***

10. Claims 4-6, 11 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is an examiner's statement of reasons for allowance:

Art Unit: 2819

With respect to claim 4, the prior art does not teach the compensation circuit having a miller transistor.

With respect to claim 11, the prior art does not teach a resistor connected in series between a switch element.

With respect to claim 12, the prior art does not teach a resistor connected to a gate of a MOS transistor.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

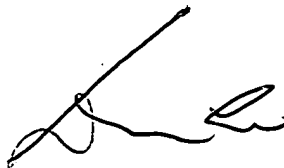
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Don P. Le whose telephone number is 571-272-1806. The examiner can normally be reached on 7AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on 571-272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2819

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

4/15/2005

A handwritten signature in black ink, appearing to read 'DON LE', with a long, sweeping horizontal stroke extending to the right.

**DON LE**  
**PRIMARY EXAMINER**